

Part 4 -- Remarks

This Amendment and Response is responsive to the final office action mailed July 14, 2005. The accompanying petition and fee for a two month extension of time extends the time for response to December 14, 2005. The accompanying Request for Continued Examination (RCE) assures complete consideration of the new and amended claims proposed by this Amendment and Response.

In the July 14 office action, all pending claims 1, 3, 4, 6-22, 24-27 and 29-52 were rejected under 35 USC 102 as anticipated by Fig. 7 of Navach (5,163,737). The office action asserts that the pending claims are "replete with undesired effect or a presumed consequence of the claimed cushion," that "the cushion shown by Navach et al. can present the same effect depending upon how it is utilized," and that "the applicant's arguments appear to be directed to a presumed effect or a desired consequence which does not serve to overcome the above rejection involving Navach et al."

Reconsideration of this anticipation rejection is respectfully requested, with respect to the now-pending claims 22, 24, 26, 27, 29-32, 35-37, 40-43 and 48-76.

Interview

On October 5, 2005, the undersigned and Thomas R. Hetzel, an inventor and CEO of the assignee of the present invention, interviewed the Examiner, Mr. Safavi, regarding the July office action. During the interview, the undersigned attempted to point out the patentable distinctions between the Navach reference and pending claim 1. The discussion terminated prematurely upon Examiner asserting that the claimed support areas and relief areas were defined with respect to the human anatomy, that the human anatomy was not statutory subject matter, and that claim limitations which refer to the human anatomy were not entitled to "patentable weight."

As understood, the Examiner has interpreted the claims as not limiting the position of the support areas and the relief areas (because these are defined with respect to the human anatomy); and therefore any prior art cushion having structural support areas and relief areas, regardless of their location or interaction with the human

anatomy, permitted a rejection of the apparatus claims. The Examiner appeared to articulate a position that claim limitations, despite being satisfactory under Section 112, could nevertheless be disregarded for patentability purposes when those limitations referred to nonstatutory subject matter, i.e. the human anatomy.

Interpreting the claims in this manner, the Examiner contended that Navach satisfied the claims. The Examiner stated that it appeared to him that Navach could be used in the way claims required, when so interpreted.

The Examiner stated that the claims had to be defined entirely by structural limitations in order for their limitations to be given patentable weight. As an example, the Examiner stated that acceptable structural claim limitations should define the support areas and relief areas by dimensions or relative dimensions. Mr. Hetzel and the undersigned then pointed out that any such structural definition would be either impossible or of such a limiting nature to deny the invention an adequate scope of patent protection.

When asked to explain how this claim interpretation applied to the pending method claims, specifically independent claim 22, the Examiner stated that the claim interpretation also applied to the pending method claims but "not to the same degree" as for apparatus claims.

A request was made for a citation to legal authority which supported the Examiner's approach to claim interpretation. The Examiner stated that he "might" do so in an advisory action or a response to any further papers filed.

New Claims, Claim Amendments and Specification Amendments

The previously pending apparatus claims have been canceled and replaced by new independent apparatus claim 53, and its dependent claims 54-69. Claims 53-69 emphasize structural aspects of the invention, and the way those structural aspects interact with parts of the human anatomy in creating the claimed patentable cushion. The subject matter of the previous apparatus claims has been incorporated in the new claims in the manner set forth.

Reference numbers have been included in the apparatus claims as permitted under MPEP 608.01(m), in order to illustrate structural features and relationships and to facilitate understanding the support in the specification for the claimed features. The use of these reference characters shall be considered as having no effect on the scope of the claims. In addition, it is requested that pages 10-20 of the specification be re-read if there is a question of whether the specification provides support for the new and amended claims. Pages 10-20 of the specification also explain the significance of the various claimed features. No new matter has been added by the new or amended claims.

Independent method claim 22, and its dependent claims 24, 26, 27, 29, 30, 40, 41, 48-50 and 76, are directed to a method of configuring a support contour. Independent method claim 31, and its dependent claims 32, 35-37, 42, 43, 51, 52 and 70-75, are directed to a method of supporting and relieving pressure on anatomical tissues which surround a skeletal structure of a pelvic area and thigh bones of a person when sitting on and supported by a support contour. These method claims have been amended to clarify the patentable aspects of the invention and to improve their form. The subject matter from canceled claims has been incorporated in the pending claims in the manner set forth. Because these claims are method claims, their functionality in relation to the human body is appropriate without any reference to structure beyond that set forth in these claims.

Specification and Drawing Amendments

The amendments to the specification, set forth in Part 2, have been made to correct oversights in description and numbering in the drawings without introducing new matter. Specifically, the amendments to the paragraphs on pages 16 and 17 substitute the word "proximal" for the word "posterior" in describing the thigh bones and thighs, making the description in these paragraphs consistent with the other description in the specification and claims. The Examiner as previously noted the discrepancy which this amendment corrects.

The reference numerals 49 and 51 have been added to the drawings and specification to provide a reference for the transverse edges of the cushion. Replacement sheets of drawings are attached at Part 1 and are designated as such. Please substitute those replacement sheets for the corresponding original drawing sheets. The only differences between the replacement sheets of drawings and the previous form of the drawings is the inclusion of a reference numbers 49 and 51 in Figs. 1, 2, 4, 7 and 8, in a manner consistent with the use in the amended paragraph at page 12 of the specification.

The three new paragraphs to be added to page 19, identified at item 7 in Part 2 above, were extracted from the specification co-pending application, Serial No. 10/628,858, also referred to by the undersigned's docket number as 249.301. Application Serial No. 10/628,858 has been incorporated by reference in the present application. See page 1, lines 4-14, as amended. The paragraphs added are taken from paragraphs [0075], [0076] and [0078] of the published form of application Serial No. 10/628,858, which is US patent application publication number 2005/0025953 A1. Changes to these extracted paragraphs eliminate reference and drawing figure numbers which are not consistent with those in the present application, as well as descriptive statements relative to functional features that are specific only to the invention of Serial No. 10/628,858 and not to the present application. The present application explicitly states that the material from which the cushion is made is described in Serial No. 10/628,858. See the sentence at page 10, lines 12-17. Accordingly no new matter has been added by these three paragraphs. The addition of subject matter is proper under 37 CFR 1.57 and MPEP 2163.07.

No new matter has been added by these specification and drawing amendments.

Legal Basis for Outstanding Anticipation Rejection

It is respectfully asserted that there is no legal basis to support the proposition, asserted in the July 14 office action and the interview, that claim limitations referring to nonstatutory subject matter can be disregarded and given no patentable weight in

claims for an invention of which has a functional relationship to that nonstatutory subject matter. In the present rejection, aspects of the human anatomy are alleged to be the nonstatutory subject, and the limitations of the claimed cushion which interact with those aspects of the human anatomy have been given no patentable weight. No legal authority has been cited to support the claim interpretation used in the rejection or refer to in the interview. The undersigned has been unable to discover any legal authority which supports that claim interpretation position taken in the rejection are referred to in the interview. However, legal authority has been discovered which demonstrates the clear error of the position taken in the rejection and the interview.

In In re Gulack, 706 F.2d 1381, 217 USPQ 401 (CAFC 1983), the Federal Circuit considered an obviousness rejection of claims which were characterized as involving two or more movable rings or bands upon which printed subject matter was attached, and an algorithm which developed new information based on an interrelationship between the printed matter on the two movable rings. The printed subject matter was recognized as nonstatutory, and the question before the Court was whether the nonstatutory printed subject matter should be given no patentable weight in determining patentability. In reversing the PTO Board of Appeals, the Federal Circuit held:

Differences between the invention and the prior art cited against it cannot be ignored merely because those differences reside in the content of the printed matter. Under section 103, the board cannot dissect a claim, excise the printed matter from it, and declare the remaining portion of the mutilated claim to be unpatentable. The claim must be read as a whole. If the board meant to disregard that basic principle of claim interpretation, we must reverse the rejection as a matter of law. Gulack, 217 USPQ 403-404)

The Federal Circuit went on to explain that the only time it is appropriate to give no patentable weight to nonstatutory subject matter is when that nonstatutory subject matter was not structurally or functionally related with the other limitations of the claim.

Where the printed matter is not functionally related to the substrate (i.e. rings), the printed matter will not distinguish the invention from the prior art in terms of patentability. Although the printed matter must be considered,

in that situation it may not be entitled to patentable weight. Gulack, 217 USPQ 405. (Parenthetical comment added.)

The Federal Circuit found that the printed subject matter and the algorithm which related the printed subject matter to the new information constituted a proper functional relationship which required that the printed subject matter be given patentable weight in an apparatus claim. Gulack also discusses that the relationship may be structural or functional, and that either a structural or functional relationship is sufficient to require that patentable weight be given to claimed features in apparatus claims.

The present claims define clear structural and functional relationships between the human anatomy with the other features of the claim. The defined support areas and the relief areas are adapted to interact with the anatomy as set forth in the claims. Because of these clearly defined relationships, the claim limitations must be given patentable weight. After all, the entire purpose of a cushion is to interact with the human anatomy. The recited functional and structural relationships of the relief and support areas with the human anatomy require that they be considered fully in determining the patentability of the pending claims. When so considered in the manner required by law, the pending claims are patentably distinguishable from Navach.

Patentability of the Pending Claims

Navach simply fails to disclose that his relief areas and the support areas interact with the human anatomy in the manner specified in the pending claims. Navach discloses that a recess is provided under the ischia, under the trochanters and beneath the sciatic nerves to limit local pressure. The recess is achieved by bladders which, when inflated, clasp the buttocks and the thighs of the seated person rather than support the seated person, thereby presumably presenting less pressure on these areas. In clasping the other areas, presumably a support declivity exists in areas of less pressure.

Even giving Navach the benefit of considerable doubt that his cushion provides support areas at the opposite lateral sides of the posterior pelvic area and relief areas below the ischial tuberosities and the greater trochanters and the coccyx and sacrum,

Navach fails to disclose the support area beneath the proximal thigh bone, as is recited in all of the pending claims. Indeed, Navach intentionally avoids creating a support area below the proximal thigh bone, as recited in the pending claims, because Navach provides a relief area to avoid stimulating the sciatic nerve extends below the proximal thigh bone at this location. Navach's relief area below the proximal thigh bone is shown by the space between the thigh-clasping bladders 76 and 78 in Fig. 7 and by the sciatic recess 36 shown in Fig. 1. Accordingly, Navach cannot anticipate the pending claims, because Navach intentionally avoids creating a support surface at the proximal thigh support area (64, 66 as shown in the Fig. 8 of the application) where all of the pending claims require such a support area.

Furthermore, the present claims require that the proximal thigh support area be located closer to the greater trochanters at the hip joint end of the thigh bone compared to the knee joint end of the thigh bone. When located in this manner, the proximal thigh support area acts as a fulcrum to transfer weight from the distal legs in a lever-like manner to the greater trochanters for elevating the pelvic area at the hip joints. This has the effect of lifting the hip bones and counterbalancing the support provided by the opposite lateral support areas on the back of the pelvic area. Navach cannot create this effect because the highest point which contacts the thighs is located closer to the knee joint than to the hip joint, i.e. distally, as shown in Fig. 2 of Navach. As a result of the more elevated location being closer to the knee joint and therefore more distal rather than proximal relative to the hip joints, Navach cannot secure the lever-like fulcrum transfer of weight from the distal legs for elevating the pelvic region, as is recited in the pending claims 27, 29, 36, 48, 51, 52, 60-63 and 70-72. Because Navach does not provide proximal thigh supports for elevating the pelvic area at the hip joints, Navach lacks the capability to prevent tipping of the pelvic area as recited in claims 49-53, 54, 63, and 64, among other claims.

The structural details added to the apparatus claims 53-69 further distinguish those claims from the structure of Navach.

The open cell foam described in Navach is completely unrelated to the matrix of resilient adhered-together plastic beads recited in claims 67, 68, and 40-43. In this regard the Examiner's attention is respectfully directed to the paragraphs identified in Part 2 above at item 7. As explained above, these paragraphs were extracted from the specification co-pending application, Serial No. 10/628,858, which has been incorporated by reference, based on the statement in the present application at page 10, lines 12-17, that the material of the present cushion is described in Serial No. 10/628,858.

The new paragraphs describe the advantageous use of adhered-together plastic beads. The open cell foam described in Navach acts as a sponge, while the adhered-together beads permit water to be poured through the entire cushion without retention and thereby allow air circulation through the cushion in the same manner. Air circulation is advantageous because it prevents moisture from building up which can lead to the enhanced possibility of developing pressure ulcers. Since Navach discloses only closed cell foam, his disclosure cannot anticipate claims 40-43, 67 and 68.

For the articulated and other reasons, Navach simply cannot and does not anticipate the present pending claims. Simply comparing the relief areas 32, 36 and 40 and the support areas 60, 62, 64 and 66 shown in Fig. 8 of the present application with either Figs. 1 or 7 of Navach demonstrates the significant differences of the presently claimed invention from Navach.

Request for Information

It is respectfully requested that any further citation of Navach as anticipating the present claims be supported by a reasonable explanation of the manner in which the Examiner considers Navach to be capable of use in anticipating the pending claims. Certainly nothing in the Navach disclosure anticipates the present claims or explains how to use the Navach invention in any way other than the manner that Navach discloses. No such explanation is now of record as to the manner of use of Navach which forms the basis for the rejection.


In addition, if the legal authority cited above is not considered as controlling in this situation, it is specifically and respectfully requested that a citation be provided of the legal authority which the Examiner considers as controlling in this situation.

Conclusion

For the reasons set forth above, it is believed that all pending claims are patentably distinguishable from Navach, and are in condition for allowance. Allowance is respectfully requested. The Examiner is encouraged to contact the undersigned by telephone to resolve any further issues that might inhibit the immediate allowance of the application.

Respectfully submitted,

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